INTERMOUNTAIN POWER SERVICE CORPORATION

April 2, 2003

Mr. Rick Sprott, Director
Utah Division of Air Quality
Utah Department of Environmental Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820

Attention: Rusty Ruby, NSR Section Head

Dear Director Sprott:

Request for AO Extension: Further Testing and Operation of Over Fire Air

Intermountain Power Service Corporation (IPSC) submitted a notice of intent (NOI) for an experimental approval order to demonstrate and collect data on overfire air (OFA) at the Intermountain Generating Station (IGS) in Delta, Utah. The IGS is a coal-fired steam-electric generating plant located in Millard County. The Utah Division of Air Quality (UDAQ) subsequently issued an experimental approval order (AO #DAQE-AN0327011-03, attached) for overfire air (OFA) on Unit One at IGS. IPSC is seeking, with this letter, an extension to certain terms of the experimental AO.

AO DESCRIPTION

UDAQ permitted IPSC to install a multi-port overfire air system used to control NOx generation from coal combustion. The AO further allowed operation of the OFA system for trial testing to obtain data for further permitting, not to exceed 150 days from the date of the experimental AO (February 14, 2003). IPSC initially submitted an NOI on September 23, 2002 requesting approval to install and operate an OFA system. Due to the lack of supporting data required for the Utah Division of Air Quality to issue an Intent to Approve, we requested approval to install and test an OFA experimentally. Testing will be performed to demonstrate the effectiveness of overfire in NOx control, as well as data collection that the DAQ can use to make a final determination in permitting continuous operation of the OFA system. Specific details of the system and expected performance criteria were submitted in the NOI process described above.

REQUESTED EXTENSION TO PERMIT CONDITIONS

IPSC is specifically requesting an extension to condition #3 of the experimental AO. We interpret that condition #3 requires the shut down of the over fire air system once the testing for permit data collection is complete. The OFA has been installed pursuant to the Experimental AO but it cannot be used after the authorized test unless and until the NOI is approved by DAQ. Thus, after Unit 1 restarts and the tests are completed, the OFA will not be used for several weeks or months, with the result that there will be no OFA-driven NOx reductions during that

Mr. Rick Sprott April 2, 2003 Page 2

time. IPSC is requesting an extension to allow operation of the OFA system beyond permit testing for the following reasons:

- 1. Mercury Testing IPSC is planning to perform additional mercury testing in preparation for EPA's new mercury MACT standard for utilities. IPSC has apparently set the bar for the MACT standard with the test results of the 1999 ICR mercury testing. Since the unit configuration has changed since then (OFA, greater heat input, scrubber wall rings), we wish to retest in concert with other industry parties, including the Electric Power Research Institute (EPRI) and the Utility Air Regulatory Group (UARG). Although the specific time frame has not yet been determined, the test will consist of a 30-day continuous on-line monitoring analysis, with intermittent Ontario-Hydro mercury stack tests interspersed throughout the same period. To optimize the effectiveness of the testing we need to operate as close as possible to normal operating scenarios, including the use of OFA. EPA is also very interested in having this additional data available for the mercury MACT standard database.
- Operating Shakedown Although IPSC should be able to obtain sufficient data for permitting during the initial 30 to 45 day operating period, we feel that further continuous OFA operation is necessary to fully "shakedown" OFA for operational and performance evaluations, specifically in preparation to the proposed mercury testing.
- 3. Environmental Benefit Continued operation and testing of OFA for purposes beyond the initial permit data collection can result in NOx reductions greater than otherwise would occur. Emissions of CO will be reduced to the maximum extent possible through the use of good operating practices, which will most likely be BACT for CO in the final AO for the OFA. Continued extended OFA operation will not cause a nuisance because there will be no persons or property affected by the increase in CO emissions. The CO emissions resulting from extended operation of OFA will not cause or contribute to any violation of the National Ambient Air Quality Standards for CO. There will be no adverse impact on Class I areas, and the reductions in NOx will lessen precursors of regional haze.

Additionally, the plain language of the emergency AO allows trial test operations for up to 150 days from the date of the emergency AO. We believe our request qualifies as trial test operations. Therefore, IPSC requests that UDAQ allow continuous operation of the OFA under condition #3 of the emergency AO until the earlier of the 150-day period (ending July 14, 2003), or the issuance of a final permanent AO.

If your office feels that our request is permissible under the current experimental AO, please respond by return mail accordingly. If your office considers that our request cannot be allowed, please consider this letter as a request for variance for presentation to the Utah Air Quality Board. IPSC will then submit a formal variance request form for review by the Air Board as required upon your denial of this request.

Mr. Rick Sprott April 2, 2003 Page 3

If you have any questions, please contact Dennis Killian at 435-864-4414, or by e-mail at dennis-k@ipsc.com.

Cordially,

George W. Cross

President & Chief Operations Officer

BP/RJC:jmg

Enclosure: Experimental Approval Order

cc: Blaine Ipson, IPSC

James Holtkamp, LLG&M

Eric Tharp, LADWP



Utan!

Where ideas connect

Department of Environmental Quality Division of Air Quality

Michael O. Leavitt Governor

Dianne R. Nielson, Ph.D. Executive Director

> Richard W. Sprott Director

150 North 1950 West P.O. Box 144820 Salt Lake City, Utah 84114-4820 (801) 536-4099 Fax (801) 536-4414 T.D.D. www.deq.utah.gov GWC



DAQE-AN0327011-03

February 14, 2003

George Cross, President Intermountain Power Service Corporation 850 West Brush Wellman Rd Delta, Utah 84624

Dear Mr. Cross:

RE:

Experimental Approval Order To Test Overfire Air System for NOx Control

Millard County - CDS-A, ATT, NSPS TITLE V

Project Code: N0327-011

The IPSC initial request, dated <u>February 5, 2003</u> for approval of the overfire air (OFA) system on the Unit 1 boiler at the Intermountain Generating Station (IGS) was received by the Utah Division of Air Quality (DAQ) on <u>February 7, 2003</u>. The request for an Experimental Approval Order (AO) was so that Intermountain Power Service Corporation (IPSC) could conduct research at the IGS on using OFA to control NO_x generation from coal combustion and acquire the data needed to modify the current IGS Approval Order and Title V permit.

Abstract

Intermountain Power Service Corporation (IPSC) has requested an experimental Approval Order to demonstrate and collect data on an overfire air (OFA) system at the Intermountain Generating Station (IGS) in Delta, Utah. The IGS is a coal-fired steam-electric generating plant located in Millard County. IPSC has proposed to install a multiport OFA air system on Unit 1 to control NO_x generation from coal combustion. Testing will be performed to demonstrate the effectiveness of overfire in NO_x control, as well as data collection that can be used to make a final determination by DAQ in approving the continuous operation of the OFA system. Millard County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS), Subpart Da and Subpart Y apply to this source. Boiler Units 1 & 2 are also Group 1, Phase II units under the Acid Rain Program. IPSC is a major source of NO_x, SO₂, CO, and PM₁₀. Title V of the 1990 Clean Air Act applies to this source.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code (UAC). However, air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Experimental AO by the Executive Secretary of the Utah Air Quality Board.

Approval for trial test operation of the overfire air system is hereby granted in accordance with Section 19-2-107 (2)(e) of the Utah Air Conservation Act under the following conditions:

- 1. The test operation of the overfire air (OFA) system shall only be performed in the Intermountain Generating Station located in Delta, Utah.
- 2. During the test period the OFA shall only be operated on the Unit 1 boiler.
- 3. The trial test operations of the OFA shall not be performed more than 150 days from the date of this Experimental Approval Order (AO).
- 4. All requirements of the AO DAQE-049-02, dated January 11, 2002, and the Title V permit 2700010001 shall be adhered to. This Experimental AO does not give approval to violate any conditions in the AO or the Title V permit.
- 5. The test operation of the OFA system shall be terminated if the emissions and/or opacity limits listed in the AO DAQE-049-02 for the Unit 1 boiler are exceeded.

A report describing the results of the test operations of the overfire air system shall be submitted to the Executive Secretary, Utah Air Quality Board, attention New Source Review Section, within 45 days after the project is completed. The report, at a minimum, shall include the emissions measured, the positions of all dampers when the emissions are measured, mass airflow and all other measurements taken that are affected by the OFA system.

The Division of Air Quality does not endorse the products, chemicals or equipment used in this Experimental AO.

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of this Experimental AO.

If you have any questions on the Experimental Approval conditions, please contact Nando Meli at (801) 536-4052.

Sincerel

Richard W. Sprott, Executive Secretary

Utah Air Quality Board

RWS:NM:re

cc: Millard County District Health Department